

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

### REMARKS

The Final Rejection has been carefully considered. Applicants thank the Examiner for conducting a telephonic interview on May 11, 2006. Claims 15, 17-19 and 21-31 are pending. Claims 15, 18 and 28 have been amended. No new matter has been added by way of amendment. Support for the amendments to claims 15, 18 and 28 can be found in the Specification as originally filed at least at p. 11, lines 4-10; p. 15, lines 1-7; p. 17, line 17 to p. 18, line 4; Fig. 2a; Fig. 2b.

Claim 28 has been rejected under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the written description requirement because the claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. *See* Final Rejection at p. 2. Claims 15-18 and 20 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by USPN 5,234,126 to Jonas *et. al.* ("Jonas"). *See* Final Rejection at ¶ 2. Claims 18 and 19 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by USPN 4,667,454 to McHenry *et. al.* ("McHenry"). *See* Final Rejection at ¶ 3. Claim 18 has been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by USPN 4,497,855 to Agrawal *et. al.* ("Agrawal"). *See* Final Rejection at ¶ 4. Claims 21-26 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Jonas in view of US Published Application 2002/0187290 to Hodson *et. al.* ("Hodson"). *See* Final Rejection at ¶ 6. Claim 27 has been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Jonas in view of Hodson and USPN 5,202,192 to Hope *et. al.* ("Hope"). *See* Final Rejection at ¶ 7. Claims 29-31 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Agrawal. *See* Final Rejection at ¶ 8.

Applicants respectfully submit that all pending claims are allowable over the cited references in view of the amendments and arguments made herein, and respectfully request reconsideration and allowance of the same.

**I. Withdrawal of Rejection Under 35 U.S.C. § 101.**

Applicants thank the Examiner for withdrawing the previous rejection of claim 16 under

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

35 U.S.C. § 101 for alleged double patenting over claim 18 of the application due to cancellation of claim 16.

## **II. Rejection Under 35 U.S.C. § 112.**

Claims 15 and 18 were previously rejected under 35 U.S.C. § 112, second paragraph for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. *See* Office Action of May 19, 2005 at ¶ 6. Claims 15 and 18 were amended to correct typographical errors, and Applicants thank the Examiner for withdrawing this rejection.

Claim 28 has been rejected under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the written description requirement because the claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. *See* Final Rejection at pp. 2-3. Specifically, the Examiner asserts that the Specification does not teach the recited adhesive amount of "5 to about 10 % volume adhesive." *See* Final Rejection at p. 3.

As discussed during the interview of May 11, 2006, Applicants have amended claim 28 to delete the limitation of "5 to about 10 % volume adhesive." Applicants therefore respectfully request that this rejection be withdrawn.

## **III. Rejections Under 35 U.S.C. § 102.**

Claims 15-18 and 20 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by USPN 5,234,126 to Jonas *et. al.* ("Jonas"). *See* Final Rejection at ¶ 2. Claims 18 and 19 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by USPN 4,667,454 to McHenry *et. al.* ("McHenry"). *See* Final Rejection at ¶ 3. Claim 18 has been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by USPN 4,497,855 to Agrawal *et. al.* ("Agrawal"). *See* Final Rejection at ¶ 4. Applicants respectfully submit that the cited references do not disclose each and every limitation of the rejected claims, as amended, and therefore respectfully request that these rejections be withdrawn for the following reasons.

### **A. Rejection of Claims 15-18 and 20 over Jonas.**

Claims 15-18 and 20 have been rejected under 35 U.S.C. § 102(b) as allegedly

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

anticipated by Jonas. *See* Final Rejection at ¶ 2. Specifically, with regard to claim 15, the Examiner states that Jonas "teach[es] a method for forming a plastic container for hot-filled food product (abstract; claim 1), comprising: selecting at least one polymer for a plastic container (column 13, lines 57-68); and forming the plastic container (column 14, lines 1-5); wherein the plastic container comprises: a mouth; a bottom surface; and a container wall between the mouth and the bottom surface (column 8, lines 59-68), wherein prior to hot-filling of the container with a food product, the bottom surface is outwardly flexed; wherein further one of the outwardly flexed bottom surface or the container wall is configured to flex inward into the cavity of the container with food product (column 5, lines 19-27; Fig. 3 [see outwardly deflected container with food product]); wherein further the inward flexing of the bottom surface of the container wall reduces a pressure differential between the inside of the container and the atmospheric pressure when either the container is hot-filled with food product or when the container is transported from a locale of lower atmospheric pressure to higher atmospheric pressure (claim 1); and wherein further the non-flexing surface maintains the same form from prior to hot-filling or transport, wherein further the flexing surface maintains its inwardly flexed configuration following cooling of the hot-filled container (claim 1; see column 5, lines 19-27)." *See* Final Rejection at ¶ 2.

With respect to claim 18, the Examiner states that Jonas "teach[es] a method for forming a plastic container with a selectively deformable surface (abstract), comprising: selecting at least one polymer for a plastic container (column 13, lines 57-68); and thermoforming a plastic container from the heated polymer (column 14, lines 1-5); wherein the plastic container comprises: a mouth; a bottom surface; and a container wall between the mouth and the bottom surface (column 8, lines 59-68), wherein prior to hot-filling of the container with a food product, the bottom surface is outwardly flexed; wherein further one of the outwardly flexed bottom surface or the container wall is configured to flex inward into the cavity of the container with food product (column 5, lines 19-27; Fig. 3 [see outwardly deflected container with food product]); wherein further the inward flexing of the bottom surface of the container wall reduces a pressure differential between the inside of the container and the atmospheric pressure when

U.S. Patent Appl. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

either the container is hot-filled with food product or when the container is transported from a locale of lower atmospheric pressure to higher atmospheric pressure (claim 1); and wherein further the non-flexing surface maintains the same form from prior to hot-filling or transport, wherein further the flexing surface maintains its inwardly flexed configuration following cooling of the hot-filled container (claim 1; see column 5, lines 19-27)." See Final Rejection at ¶ 2. The Examiner took Official Notice that "it is well known to heat a plastic sheet to its VICAT temperature before thermoforming." See Final Rejection at ¶ 2.

Applicants respectfully submit that Jonas does not teach each and every limitation of claims 15 and 18, as amended. Applicants have amended claims 15 and 18 to include the limitations that the bottom surface of the container is formed to consist of a curved surface contiguous to a concentric sleeve, wherein the curved surface is convex to the cavity of the container and the concentric sleeve is proximate to both the curved surface and the container wall and is substantially planar between the curved surface and the container wall. Further, the convex curved surface is formed such that it flexes inward toward the cavity of the container upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that inwardly flexed configuration following cooling of the hot food product. Additionally, claims 15 and 18 include the limitation that the container wall is formed such that it withstands buckling upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that configuration following cooling of the hot food product.

Jonas does not disclose, expressly or inherently, a container having a bottom surface that is formed during forming (in claim 15) or thermoforming (in claim 18) as that in claims 15 and 18. Rather, the bottom surface of the container in Jonas as seen in Fig. 5 is *concave* with respect to the container cavity after forming See, e.g., Jonas at Fig. 5; col. 8, lines 61-68 (element 16 of Fig. 5 references a "recessed circular center portion"). Jonas also does not disclose a

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

substantially planar sleeve concentric to the curved surface that is proximate to the convex curved surface and the container wall.

In addition, Jonas does not disclose a container for hot-fill food packaging applications at all. Rather, the container disclosed in Jonas is suitable for terminal sterilization without panel buckling. *See* Jonas at col. 4, lines 45-50. Terminal sterilization is a process to kill harmful organisms that are viable at about pH 4.6, which requires raising product and container temperatures to the equivalent of 250°F. *See* Jonas at col. 2, lines 18-20. In contrast, hot-fill food packaging takes place at much lower temperatures, e.g. at 160°F to 200°F. *See* Jonas at col. 2, lines 5-8. Jonas discloses the need for the bottom surface to “deflect[] both inward and outward.” *See* col. 4, lines 50-60; col. 3, lines 33-42, lines 47-54 (containers for use in high-speed, high-temperature, short-time terminal sterilization processes *must* be designed to “deform reversibly during the process . . . and return to [their] original shape”). This is due to the volumetric contraction *and* expansion of the filled, sealed container during terminal sterilization. Further, terminal sterilization causes a vacuum in the interior of the sealed, filled container that exceeds 10 psi in addition to net internal pressures that exceed 20 psi. *See* col. 2, lines 32-38. Therefore, Jonas also does not disclose the limitation of claims 15 and 18 of a convex curved surface in the bottom surface that is formed such that it flexes inward toward the cavity of the container upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that inwardly flexed configuration following cooling of the hot food product. Jonas does not disclose a container for hot-filled food product and therefore does not disclose the characteristics of its container under hot-filling conditions rather than terminal sterilization conditions.

Jonas does not disclose a container having a bottom surface that is formed to consist of a curved surface contiguous to a concentric sleeve, wherein the curved surface is convex to the cavity of the container and the concentric sleeve is proximate to both the curved surface and the container wall and is substantially planar between the curved surface and the container wall.

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

Rather, the bottom surface of the container in Jonas as seen in Fig. 5 is *concave* with respect to the container cavity after forming, with no substantially planar sleeve contiguous to the curved surface and the container wall. *See, e.g.*, Jonas at Fig. 5; col. 8, lines 61-68 (element 16 of Fig. 5 references a "recessed circular center portion"). Further, Jonas does not disclose a bottom surface having a convex curved surface that is formed such that it flexes inward toward the cavity of the container upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that inwardly flexed configuration following cooling of the hot food product. Applicants therefore respectfully request that this rejection be withdrawn with respect to claims 15 and 18, and also with respect to claims 17 and 20, which depend from claims 15 and 18, respectively.

**B. Rejection of Claims 18 and 19 over McHenry.**

Claims 18 and 19 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by McHenry. *See* Final Rejection at ¶ 3. With respect to claim 18, the Examiner states that McHenry "teach[es] a method for forming a plastic container with a selectively deformable surface (abstract), comprising: selecting at least one polymer for a plastic container (column 4, lines 48-61); and thermoforming a plastic container from the heated polymer (column 3, line 39); wherein the plastic container comprises: a mouth; a bottom surface; and a container wall between the mouth and the bottom surface (Fig. 1A), wherein prior to hot-filling of the container with a food product, the bottom surface is outwardly flexed (Figure 1A); wherein further one of the outwardly flexed bottom surface or the container wall is configured to flex inward into the cavity of the container with food product (Fig. 1B); wherein further the inward flexing of the bottom surface of the container wall reduces a pressure differential between the inside of the container and the atmospheric pressure when either the container is hot-filled with food product or when the container is transported from a locale of lower atmospheric pressure to higher atmospheric pressure (reduction of volume will inherently perform this task); and wherein further the non-flexing surface maintains the same form from prior to hot-filling or transport, wherein further the

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

flexing surface maintains its inwardly flexed configuration following cooling of the hot-filled container (Figure 1A and Figure 1B).” See Final Rejection at ¶ 3. The Examiner took Official Notice that “it is well known to heat a plastic sheet to its VICAT temperature before thermoforming.” See Final Rejection at ¶ 3.

Applicants respectfully submit that McHenry does not teach each and every limitation of claim 18, as amended. Applicants have amended claim 18 to include the limitations that the bottom surface of the container is formed during thermoforming to consist of a curved surface contiguous to a concentric sleeve, wherein the curved surface is convex to the cavity of the container and the concentric sleeve is proximate to both the curved surface and the container wall and is substantially planar between the curved surface and the container wall. Further, the convex curved surface is formed such that it flexes inward toward the cavity of the container upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that inwardly flexed configuration following cooling of the hot food product. Additionally, claim 18 includes the limitation that the container wall is formed during thermoforming such that it withstands buckling upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that configuration following cooling of the hot food product.

McHenry does not disclose, expressly or inherently, a container having a bottom surface that is formed during thermoforming as that in claim 18. Rather, the container disclosed in McHenry comprises a “substantially flat” bottom surface and “outer and inner convex annular rings” with an “interstitial ring” prior to hot-filling. See, e.g., McHenry at Fig. 1A; col. 5, lines 3-7 (elements 7, 9, 9a, 9b of Fig. 1A). McHenry also does not disclose a substantially planar sleeve concentric to the curved surface that is proximate to the convex curved surface and the container wall.

In addition, the container disclosed in McHenry is suitable for sterilization of low acid

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

foods, which occurs at about 250°F. *See* McHenry at col. 5, lines 44-47. McHenry emphasizes that “[t]he container must be designed to deform outwardly at a container internal pressure below the pressure which causes bursting of the container at the particular cooking temperature . . . [f]or example, at 250°F, a temperature commonly used for sterilizing low acid foods . . . the container will burst if the internal pressure of the container exceeds its external pressure by approximately 13.1 p.s.i. . . . [t]he amount of outward distention of the container bottom wall, and hence the volume increase in the container, during the cooking cycle, must be sufficient as to prevent bursting of the container by reducing the internal pressure.” *See* McHenry at col. 5, lines 41-56. In contrast, hot-fill food packaging takes place at much lower temperatures, *e.g.* at 180°F. *See* Jonas at col. 2, lines 5-8. There is no teaching in McHenry of how the disclosed container performs at temperatures lower than 250°F, but indicates that containers will perform differently at the higher temperatures incurred during sterilization as compared to hot filling applications. *See* McHenry at col. 5, lines 36-51.

Further, the curved surface of the bottom surface of the container of claim 18 is convex when formed and flexes inwardly, whereas in McHenry the curved surface flexes outwardly and then inwardly following filling, sealing and cooking. Accordingly, McHenry also does not disclose the limitation of claim 18 of a convex curved surface in the bottom surface that is formed such that it flexes inward toward the cavity of the container upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that inwardly flexed configuration following cooling of the hot food product. McHenry does not disclose a container for hot-filled food product and therefore does not disclose the characteristics of its container under hot-filling conditions rather than terminal sterilization conditions.

McHenry does not disclose a container having a bottom surface that is formed to consist of a curved surface contiguous to a concentric sleeve, wherein the curved surface is convex to the cavity of the container and the concentric sleeve is proximate to both the curved surface and the container wall and is substantially planar between the curved surface and the container wall.



U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

Rather, the container disclosed in McHenry comprises an "substantially flat" bottom surface prior to hot-filling, with no substantially planar sleeve contiguous to the curved surface and the container wall. *See, e.g.*, McHenry at Fig. 1A; col. 5, lines 3-7 (element 7 of Fig. 1A references a "substantially flat portion"). Further, McHenry does not disclose a bottom surface having a convex curved surface that is formed such that it flexes inward toward the cavity of the container upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that inwardly flexed configuration following cooling of the hot food product. Applicants therefore respectfully request that this rejection be withdrawn with respect to claim 18, and also with respect to claim 19, which depends from claim 18.

**C. Rejection of Claim 18 over Agrawal**

Claim 18 has been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Agrawal. *See* Final Rejection at ¶ 4. The Examiner states that Agrawal "teach[es] a method for forming a plastic container with a selectively deformable surface (abstract), comprising: selecting at least one polymer for a plastic container (abstract, polyester); and thermoforming a plastic container from the heated polymer (column 6, lines 44-50); wherein the plastic container comprises: a mouth; a bottom surface; and a container wall between the mouth and the bottom surface (Figure 6), wherein prior to hot-filling of the container with a food product, the bottom surface is outwardly flexed; wherein further one of the outwardly flexed bottom surface or the container wall is configured to flex inward into the cavity of the container with food product (abstract; *see* Fig. 3, Ref. 64 [outwardly flexed]); wherein further the inward flexing of the bottom surface of the container wall reduces a pressure differential between the inside of the container and the atmospheric pressure when either the container is hot-filled with food product or when the container is transported from a locale of lower atmospheric pressure to higher atmospheric pressure (reduction of volume will inherently perform this task); and wherein further the non-flexing surface maintains the same form from prior to hot-filling or transport, wherein further the flexing surface maintains its inwardly flexed configuration following cooling

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

of the hot-filled container (see col., 10, lines 65-68).” See Final Rejection at ¶ 4. The Examiner took Official Notice that “it is well known to heat a plastic sheet to its VICAT temperature before thermoforming.” See Final Rejection at ¶ 4.

Applicants respectfully submit that Agrawal does not teach each and every limitation of claim 18, as amended. Applicants have amended claim 18 to include the limitations that the bottom surface of the container is formed during thermoforming to consist of a curved surface contiguous to a concentric sleeve, wherein the curved surface is convex to the cavity of the container and the concentric sleeve is proximate to both the curved surface and the container wall and is substantially planar between the curved surface and the container wall. Further, the convex curved surface is formed such that it flexes inward toward the cavity of the container upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that inwardly flexed configuration following cooling of the hot food product. Additionally, claim 18 includes the limitation that the container wall is formed during thermoforming such that it withstands buckling upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that configuration following cooling of the hot food product.

Agrawal does not disclose, expressly or inherently, a container having a bottom surface that is formed during thermoforming as that in claim 18. Rather, the container disclosed in Agrawal comprises an inwardly flexed (concave) bottom surface as formed prior to hot-filling. See, e.g., Agrawal at Fig. 2; Fig. 3. Agrawal also does not disclose a substantially planar sleeve concentric to the curved surface that is proximate to the convex curved surface and the container wall.

Also, Agrawal teaches the use of a “thermoelastically deformable” region that is formed during molding in the container wall at a temperature higher than incurred during hot filling to offset the decrease in container volume during hot filling and sealing. See Agrawal at col. 4,

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

lines 27-31. Agrawal defines the term "thermoelastically deformable" to reference "the property of a controlled heat-induced deformation of a material to a previous configuration." *See* Agrawal at col. 4, lines 39-42. When the container of Agrawal is hot filled and capped, this "thermoelastically deformable" region in the container wall "remembers" its previous configuration which was formed at a higher temperature during molding and tends to return to that configuration. *See* Agrawal at col. 4, lines 42-45. Agrawal teaches that the appropriate offsetting decrease in container volume container to withstand the volume change in the container during cooling is provided by the "thermoelastically deformable" region in the container wall. *See* Agrawal at col. 4, lines 42-45. There is no disclosure of a curved surface convex to the cavity of the container that flexes inward toward the cavity upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that inwardly flexed configuration following cooling of the hot food product.

Accordingly, Agrawal does not disclose a container having a bottom surface that is formed to consist of a curved surface contiguous to a concentric sleeve, wherein the curved surface is convex to the cavity of the container and the concentric sleeve is proximate to both the curved surface and the container wall and is substantially planar between the curved surface and the container wall. Rather, the container disclosed in Agrawal comprises an inwardly flexed bottom surface as formed prior to hot-filling, with no substantially planar sleeve contiguous to the curved surface and the container wall. *See, e.g.,* Agrawal at Fig. 2; Fig. 3. Further, Agrawal does not disclose a bottom surface having a convex curved surface that is formed such that it flexes inward toward the cavity of the container upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that inwardly flexed configuration following cooling of the hot food product. Rather, Agrawal discloses a "thermoelastically deformable" region that is formed during molding in the container wall at a temperature higher than incurred during

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

hot filling to offset the decrease in container volume during hot filling and sealing. *See* Agrawal at col. 4, lines 27-31. Applicants therefore respectfully request that this rejection be withdrawn with respect to claim 18.

#### **IV. Rejections Under 35 U.S.C. 103.**

Claims 21-26 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Jonas in view of Hodson. *See* Final Rejection at ¶ 6. Claim 27 has been rejected as allegedly unpatentable over Jonas in view of Hodson and Hope. *See* Final Rejection at ¶ 7. Claims 29-31 have been rejected as allegedly unpatentable over Agrawal. *See* Final Rejection at ¶ 8. Applicants respectfully submit that the cited references, even in combination, do not disclose each and every limitation of the rejected claims, as amended. Further, Applicants submit that there is no suggestion or teaching to combine the cited references, and there is no reasonable expectation of success from a combination of the cited references. Accordingly, Applicants submit that the cited references do not form a *prima facie* case of obviousness of the rejected claims, as amended, and respectfully request that these rejections be withdrawn.

##### **A. Rejection of Claims 21-26 Over Jonas in View of Hodson.**

Claims 21-26 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Jonas in view of Hodson. *See* Final Rejection at ¶ 6. Hodson discloses a laminated thermoformable film structure useful for packaging food products. *See* Hodson at Abstract. However, Hodson does not disclose each and every limitation of claim 18, from which claims 21-26 depend, that are not disclosed in Jonas either and therefore a combination of Hodson and Jonas does not form a *prima facie* case of obviousness of the invention claimed in claim 18. *See* MPEP § 2142.

Specifically, for the reasons stated in Sec. III(A) *supra*, Jonas does not disclose a container having a bottom surface that is formed to consist of a curved surface contiguous to a concentric sleeve, wherein the curved surface is convex to the cavity of the container and the concentric sleeve is proximate to both the curved surface and the container wall and is substantially planar between the curved surface and the container wall. Further, Jonas does not disclose a bottom surface having a convex curved surface that is formed such that it flexes

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

inward toward the cavity of the container upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that inwardly flexed configuration following cooling of the hot food product. Hodson does not disclose these limitations, either.

Since a combination of Hodson and Jonas does not disclose each and every limitation of claim 18, from which claims 21-26 depend, the combination of Hodson and Jonas does not form a *prima facie* case of obviousness and Applicants respectfully request that this rejection be withdrawn.

**B. Rejection of Claim 27 Over Jonas in View of Hodson and Hope.**

Claim 27 has been rejected as allegedly unpatentable over Jonas in view of Hodson and Hope. See Final Rejection at ¶ 7. Hope discloses a polyolefin-containing adhesive blend for bonding polypropylene to polar materials, and multilayer structures produced using the adhesive blend. See Hope at Abstract. However, Hope does not disclose each and every limitation of claim 18, from which claims 21-26 depend, that are not disclosed in Jonas or Hodson either and therefore a combination of Hope with Hodson and Jonas does not form a *prima facie* case of obviousness of the invention claimed in claim 18. See MPEP § 2142.

Specifically, for the reasons stated in Sec. III(A) and IV(A) *supra*, the combination of Jonas and Hodson does not disclose, expressly or inherently, a container having a bottom surface that is formed to consist of a curved surface contiguous to a concentric sleeve, wherein the curved surface is convex to the cavity of the container and the concentric sleeve is proximate to both the curved surface and the container wall and is substantially planar between the curved surface and the container wall. Further, Jonas does not disclose a bottom surface having a convex curved surface that is formed such that it flexes inward toward the cavity of the container upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that inwardly flexed configuration following cooling of the hot food product. Hope does not disclose

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

these limitations, either.

Since a combination of Hope, Hodson and Jonas does not disclose each and every limitation of claim 18, from which claims 21-26 depend, the combination of Hope, Hodson and Jonas does not form a *prima facie* case of obviousness and Applicants respectfully request that this rejection be withdrawn.

**C. Rejection of Claims 29-31 over Agrawal.**

Claims 29-31 have been rejected as allegedly unpatentable over Agrawal. *See* Final Rejection at ¶ 8. However, for the reasons stated in Sec. III(C) *supra*, Agrawal does not disclose a container having a bottom surface that is formed to consist of a curved surface contiguous to a concentric sleeve, wherein the curved surface is convex to the cavity of the container and the concentric sleeve is proximate to both the curved surface and the container wall and is substantially planar between the curved surface and the container wall. Rather, the container disclosed in Agrawal comprises an inwardly flexed bottom surface as formed prior to hot-filling, with no substantially planar sleeve contiguous to the curved surface and the container wall. *See, e.g.,* Agrawal at Fig. 2; Fig. 3. Further, Agrawal does not disclose a bottom surface having a convex curved surface that is formed such that it flexes inward toward the cavity of the container upon filling and sealing the container with hot-filled food product at temperatures of about 160°F to about 200°F and the subsequent formation of a pressure differential between the interior of the sealed container and atmospheric pressure of about 2.5 psi to about 10 psi, and maintains that inwardly flexed configuration following cooling of the hot food product. Rather, Agrawal discloses a “thermoelastically deformable” region that is formed during molding in the container wall at a temperature higher than incurred during hot filling to offset the decrease in container volume during hot filling and sealing. *See* Agrawal at col. 4, lines 27-31. Accordingly, Agrawal does not form a *prima facie* case of obviousness of claim 18 and Applicants respectfully request that this rejection be withdrawn.

U.S. Patent Appln. Ser. No. 10/625,605  
Submission Responsive to Final Rejection dated December 19, 2005  
May 19, 2006  
Attorney Docket No. 60783.000005

### CONCLUSION

Applicants respectfully submit that pending claims 15, 17-19 and 21-31 are allowable and request allowance of the same. This Submission and Request for Continued Examination has been filed within five months of the mailing date of the Office Action, and the Commissioner is hereby authorized to charge the fee of \$610.00 for a two month extension of time and for the contemporaneously filed Request for Continued Examination from the undersigned's Deposit Account No. 50-0206. In the event any variance exists between the amount authorized and the fees determined to be due, please charge or credit any difference to the undersigned's Deposit Account No. 50-0206.

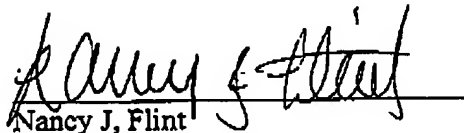
Respectfully submitted,

HUNTON & WILLIAMS LLP

Dated: May 19, 2006

Hunton & Williams LLP  
Intellectual Property Department  
1900 K Street, N.W.  
Suite 1200  
Washington, DC 20006-1109  
(305) 810-2522 (telephone)  
(305) 810-2460 (facsimile)

By:

  
Nancy J. Flint  
Registration No. 46,704